

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A medical instrument for the treatment of biological tissue, comprising a means for generating extracorporeal pressure waves and a transmission element (2) for coupling the pressure waves into the body of living beings, characterized in that the pressure wave may be generated by an impact member (10) hitting a transmission element (2) and the pressure wave propagates in the transmission element (2), that the transmission element (2) has an inwardly curved exit boundary surface (19) configured such that upon the transmission element (2) being placed in contact with the biological tissue, the pressure waves may be coupled into the biological tissue and may be focused in the biological tissue, the transmission element (2) being in the shape of an exponential horn, the transmission element (2) having a larger diameter at the exit boundary surface (19) than at an axially opposite entry boundary surface (20), and that the exit boundary surface (19) of the transmission element (2) travels a stroke of less than 0.5mm due to the impact member (10) hitting the entry boundary surface (20) of the transmission element (2).

2. (Previously Presented) The medical instrument as defined in claim 1, wherein the means for generating the pressure waves is an impact member (10) guided in a housing and adapted to be reciprocated by means of a drive means, the impact member (10) exerting one or more impulses on the transmission element (2) and inducing a

pressure wave in the transmission element (2) due to the impulse, said pressure wave propagating to the exit boundary surface (19) of the transmission element (2).

3. (Previously Presented) The medical instrument as defined in claim 2, wherein the impact member (10) is arranged coaxially to the transmission element (2).

4. (Previously Presented) The medical instrument as defined in claim 1, wherein the pressure wave source may be driven periodically, the impact member (10) and the transmission element (2) being self-returnable.

5. (Previously Presented) The medical instrument as defined in claim 1, wherein the impact frequency of the impact member (10) is about 1 to 30 Hz, preferably 1 to 12 Hz.

6. (Previously Presented) The medical instrument as defined in claim 1, wherein a spring/damping element (15) is provided between the transmission element (2) and the housing (4).

7. (Canceled)

8. (Previously Presented) The medical instrument as defined in claim 1, wherein an intermediate element (9) is arranged between the impact member (10) and the transmission element (2), which intermediate element passes an impulse from the impact member (10) to the transmission element (2).

9. (Previously Presented) The medical instrument as defined in claim 1, wherein the outer edges of the exit boundary surface of the transmission element are rounded or provided with a protective coating.

10-11. (Canceled.)

12. (Previously Presented) The medical instrument as defined in claim 1, wherein an impedance-adjusting media (5) are provided between the exit boundary surface (19) of the transmission element (2) and the biological tissue for improving the coupling of the pressure wave into the biological tissue.

13. (Currently Amended) A medical instrument for the treatment of biological tissue by generating extracorporeal pressure waves and coupling the pressure waves into the body of living beings comprising an impact member (10) for hitting against an entry boundary face (20) of a transmission element (2) thereby generating extracorporeal pressure waves which are propagated in and travel through the transmission element (2) from the entry boundary face (20) thereof to an opposite remote concavely outwardly opening exit boundary surface (19) configured such that upon the transmission element (2) being placed in contact with the biological tissue, the pressure waves can be coupled into and focused relative to the biological tissue, and impedance-adjusting means (5) provided contiguous the concavely outwardly opening exit boundary surface (19) of the transmission element (2) for improving the coupling of the pressure wave into the biological tissue, wherein the exit boundary surface (19) of the transmission element (2)

travels a stroke less than 0.5mm due to the impact member (10) hitting the entry boundary face (20) of the transmission element (2).

14. (Previously Presented) The medial instrument as defined in claim 13 wherein said impedance-adjusting means (5) is an acoustically conductive medium located substantially within the entirety of said concavely outwardly opening exit boundary surface (19).

15. (Previously Presented) The medical instrument as defined in claim 13 wherein the transmission element (2) is in the shape of an exponential horn, and the transmission element (2) has a larger diameter at the exit boundary face (19) than at the entry boundary face (20).

16. (Previously Presented) The medical instrument as defined in claim 14 wherein the transmission element (2) is in the shape of an exponential horn, and the transmission element (2) has a larger diameter at the exit boundary face (19) than at the entry boundary face (20).

17. (Currently Amended) A medical instrument for the treatment of biological tissue, comprising a means for generating extracorporeal pressure waves and a transmission element (2) for coupling the pressure waves into the body of living beings, wherein the pressure wave may be generated by an impact member (10) hitting a transmission element (2) and the pressure wave propagates in the transmission element (2); the transmission element (2) has an inwardly curved exit boundary surface (19)

configured such that upon the transmission element (2) being placed in contact with the biological tissue, the pressure waves ~~may be~~ are coupled directly into the biological tissue and ~~may be~~ are focused directly in the biological tissue; the transmission element (2) is formed in the shape of an exponential horn, the transmission element (2) having a larger diameter at the exit boundary surface (19) than at an axially opposite entry boundary surface (20); and the transmission element (2) is formed such that the transmission element (2), the entry boundary surface (20), and the exit boundary surface (19) constitute a one-piece body.

18. (Previously Presented) The medical instrument as defined in claim 17, wherein the means for generating the pressure waves is an impact member (10) guided in a housing and adapted to be reciprocated by means of a drive means, the impact member (10) exerting one or more impulses on the transmission element (2) and inducing a pressure wave in the transmission element (2) due to the impulse, the pressure wave propagating to the exit boundary surface (19) of the transmission element (2).

19. (Previously Presented) The medical instrument as defined in claim 17, wherein the impact frequency of the impact member (10) is in the range of 1 to 30 Hz, preferably 1 to 12 Hz.

20. (Previously Presented) The medical instrument as defined in claim 17, wherein a spring/damping element (15) is provided between the transmission element (2) and the housing (4).

21. (Previously Presented) The medical instrument as defined in claim 17, wherein the exit boundary surface (19) of the transmission element (2) travels a stroke of less than 0.5 mm due to the impact member (10) hitting the transmission element (2).

22. (Previously Presented) The medical instrument as defined in claim 17, wherein an intermediate element (9) is arranged between the impact member (10) and the transmission element (2), which intermediate element passes an impulse from the impact member (10) to the transmission element (2).

23. (Previously Presented) The medical instrument as defined in claim 17, wherein impedance-adjusting means (5) are provided between the exit boundary surface (19) of the transmission element (2) and the biological tissue for improving the coupling of the pressure wave into the biological tissue, and wherein the impedance-adjusting means (5) is an acoustically conductive medium located substantially within the entirety of said concavely outwardly opening exit boundary surface (19).